Online Resources for Teacher Education Early Field Experience Courses: A Case Study

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Abstract

The development and use of online resources for early field-based teacher education experiences can offer many challenges. This case study outlines the three-year period of development and implementation of online resources for two such courses, one for freshmen and one for sophomores.

This case study examines the development and implementation of two field experience courses containing extensive online material for freshmen and sophomore students interested in majoring in elementary or physical education or in earning certification in a secondary discipline at Stillman College, a liberal arts, private, historically black teaching institution, affiliated with the Presbyterian Church (U.S.A.) located in Tuscaloosa, Alabama.

Case study methodology was chosen to describe the processes utilized for the development and implementation of online resources for teacher education early field experience courses and to answer research questions related to the study. Yin (1994) indicates that case study research is an accepted methodology for describing organizational processes. Yin (1994) defines a case study as, "An empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (p. 13).

The categories of inquiry that were identified as the research questions for this case study are:

1. How does a teacher education program develop and implement online resources for early field experience courses?
2. Why would it be advantageous to utilize online resources for early field experience courses?
3. How would the courses be best organized for the most effective use of the online component?
4. How would students respond to the online resources?

The purpose of this case study is to provide descriptive information that will inform others involved in the use of online resources for early field experiences and to add to discussions of the process of developing and using online resources.

In response to the research questions, the case study describes the background for these courses, how the courses and the online resources were developed, and the extensive support made available for that development. This is followed by an outline of the implementation of these courses over a two-year period. Within this description are successes and challenges encountered in the delivery of these courses, including how they have evolved since they were first implemented. Data collection and analysis is described. Multiple sources of data used in the case study include faculty observations,

faculty and student reflections, student attendance data, student field experience logs, and faculty interviews. Data analysis led to findings that form the basis for conclusions concerning the use of the online course material. The case study presents plans to improve the use of online material for these courses. The study concludes with recommendations for further study related to findings from Stillman's experiences in providing online materials for early teacher education field experience courses.

Background

In 1999, the Stillman Teacher Education Program (STEP) faculty members were asked to develop courses with field experiences for freshmen and sophomore students interested in becoming teachers. The philosophical basis for early field experience is considered to be best practice and serves as the basis for the STEP conceptual framework (Guyton, Rainer, & Wright, 1997). This early exposure to the teaching field gives freshmen and sophomore students an opportunity to examine whether teaching is the career they want to pursue. The philosophy of the program is that the students involved in early field experiences begin to think of themselves as future teachers and have early opportunities to collect authentic experiences they can use as a foundation for the theory they will be exposed to in future teacher education courses. Early field experiences provide opportunities to teacher education students to become better teachers by helping them to articulate their purpose, choose appropriate instructional strategies, and understand P-12th grade students' social and cognitive background (Liston & Zeichner, 1991).

As discussion of the proposed early field experience evolved, the faculty decided to develop online resources to support student field experiences. The rationale for using extensive online material was to provide resources to students any place and any time they had access to the Internet. It was anticipated that this access would be especially valuable to students during the times when they are out in the field (Schwille, Nagel, & DeBolt, 2000).

Course Development and the Creation of Online Material

Faculty members were then charged with the task of developing two courses for early field experience in education. Two faculty members spent the summer of 2000 developing content and creating online material for these courses. The early field experience courses were developed to include opportunities for the teacher education students to actively assist in classrooms in area schools as they make the transition from student to preservice teacher (McIntyre, 1983). The first course requires twelve hours of classroom participation in an area elementary, middle, or high school. The second course requires 24 hours of classroom participation. During the field experiences the students consult with the classroom teacher to identify a topic on which they could teach a mini-lesson. The students write a lesson plan to be approved by the classroom teacher and field experience instructor. Students then teach the mini-lesson which is required to be videotaped.

The Field Experience in Education I (Field Experience I) students also participate in on-campus classes during which they learn about the conceptual framework for the

Stillman Teacher Education Program, how to create an I-search (MacRorie, 1988) covering issues related to the history of education, and how to initiate a philosophy of education. They are also taught basic technology skills such as use of e-mail, word processing, preparation of a PowerPoint slide show, database creation, development of a spreadsheet, and simple Web page creation. Finally, they are introduced to the various career and professional development opportunities available through career path seminars with various members of the education faculty.

Online resources were developed for Field Experience I consisting of Web-pages containing syllabi, contact information for faculty teaching the courses, documents such as the STEP conceptual framework, the state teacher evaluation criteria, description of assignments, tutorials for PowerPoint, databases, and simple Web page creation, a calendar of important dates in the courses, and career path profiles and photos of faculty members in the education and physical education departments. Many of the assignment pages contained course information and resources, including Internet links to articles and sites that provide students with the background needed to complete the assignments. The instructions for the assignments required students to submit material to their professors electronically.

Faculty members developed content for the Field Experience in Education II (Field Experience II) to include the development of a resource unit, effective teaching and learning strategies, and methods of problem-solving and critical thinking in education. This course requires 24 hours in a local school. Once again, the students are required to prepare and teach a mini-lesson to be videotaped. The Web pages created for this course contained faculty contact information, assignment information, a calendar, and the STEP conceptual framework. Students were required to send reflection journals, units, and lesson plans to the professor electronically.

Support for the Development of the Online Resources

Stillman College's president has made support for instructional technology a priority since his arrival at the college. As a result of his vision, the Stillman campus has become a technologically rich learning environment. At the time the Field Experience in Education I and II courses were being developed, the entire campus was wired with high speed cable, all faculty had modern networked computers in their offices, and education students had access to a 20-station education department computer lab, with new networked multimedia computers, supplemented by access to networked computers located in other campus labs and some residence halls. During the fall of the following year, a wireless network was installed throughout the academic, administrative, and residential areas of the campus. That same semester, high-end laptops with wireless capability, DVD players/CD burners, and other multimedia features were distributed to all Stillman students. Education faculty also purchased the same type of laptops issued to students, enabling them to have access to the wireless network. The education department has access to an additional 20 laptops with wireless capability for use in a departmental-sponsored ACT/SAT preparation program for secondary students. In addition, by spring 2002 the college acquired the Blackboard course management software for use by faculty and students. Information comparing features of Blackboard and other course management software can be found in the April 15, 2002, issue of the online *T & L*

Magazine (Carter, 2002). The administration of the college strongly encourages faculty and student use of instructional technology resources, creating a campus climate that supports faculty experimentation in the use of online material. This institutional backing of instructional technology supported the development of online resources for the two teacher education field experience courses.

A federal *Preparing Tomorrow's Teachers to Use Technology* (PT^3) grant also provided support for the development of online material for the field experience courses. Stillman College is a member of a consortium of 13 Alabama colleges and universities under the leadership of the University of South Alabama, which has received a PT^3 grant to support the integration of technology in teacher education programs. The faculty members who developed the field experience online course materials received stipends during the summer of 2000 from the Stillman allocation of the University of South Alabama PT^3 grant. Institutional resources and climate along with outside financial support played an important role in the development and use of online material for the teacher education field experience courses.

Implementation of Field Experience I

Field Experience I was first offered during the fall 2000 semester. Although the faculty members had completed the Web pages for the field experience courses by mid-summer, the students did not have access to the online resources until the middle of the fall semester. The Field Experience I professor was forced to make paper copies of the course material while negotiations continued with the Computer Information Services (CIS) Department in the attempt to provide student access to the resources. When the students did gain access to the online material, they were only available through the campus Intranet. This was not the original plan of the education faculty, but was the preference of the CIS personnel. Although students were unable to access the material away from campus, they could access it from networked computers in the Teacher Education Center that was open until 10:00 at night. By the time student access to the Field Experience I material was provided, the students were in local schools for their field experience and no longer meeting in classes held on campus. Communicating the availability of the online resources became a problem. Although the instructor sent an e-mail message to the students informing them that resources were available on departmental computers, some of the students were unaware that the online resources had become available. The professor decided to extend the due date for all Field Experience I assignments until the last day of the semester due to the difficulties caused by the delay of access to the online resources. By the end of the first semester, the instructor found that most Field Experience I students were able to communicate and send assignments through using either the campus e-mail system or personal accounts.

The Field Experience I instructor decided to create a bound handbook of course resources that duplicated most of the online material for the next semester because of the unreliability of access to the online resources. The Field Experience I instructor and students faced continued challenges regarding access to the online resources during the spring 2001 semester. For example, the CIS Department made changes in the Intranet that required changes in the usernames and passwords needed to access resources without informing the Field Experience I instructor. This caused problems for the instructor and

students when they suddenly lost access to the resources. By the end of the spring 2001 semester, the Field Experience I instructor recommended bound handbooks for both sections of Field Experience I the following semester due to concerns about the availability of the online resources.

Implementation of Field Experience II

The first semester that Field Experience II was offered, spring 2001, students immediately appeared enthusiastic, although timid, about using the Internet to communicate with the instructor. The course began with a series of classroom sessions, which explained the course objectives and developed students' ability to communicate effectively using technology. These initial sessions provided hands-on instruction that explained to students how to e-mail completed assignments with attachments, to access Web-based library resources, to use online resources for lesson plans, to search the Internet for materials to support their resource unit topic, and to access online journal articles aimed at enhancing their understanding of the issues presently facing educators.

Each week, one topic in education was selected for review and reflection. The topics came from a variety of electronic journals. Each article addressed a current topic in education. Moreover, students were required to write four lesson plans and submit them electronically to the instructor who in turn, commented on the strengths and weaknesses of each lesson. These commentaries offered suggestions designed to help students teach effectively. Although the course was designed to function electronically at this point, difficulties with the technological support services and the uncertainty resulting from several failures of the college server forced the instructor to keep a duplicate paper file on all students.

Over the course of the semester, the students fulfilled the course requirements one after another. An online tutorial presented and explained each assignment to the students. First came the lesson plans. Next, they read a series of six electronic journal articles and reflected on the significance of each topic. Students' comments clarified their developing perspective and reflected on what took place in their individual field experience (Eby, 1992; Valli, 1992). While out in the schools, students taught a minimum of one lesson. They videotaped and reflected upon this lesson for their electronic portfolio. The next assignment asked them to develop a mini-resource unit. Here, students used online resources to search for topics and skills that supported various aspects of the state curriculum. With help from online search engines and databases and state curriculum guides located in the Teacher Education Center, students prepared a mini-resource unit that demonstrated that they understood what a unit does, how it is shaped, and what content areas are important. The last course requirement asked the student to write a critical analysis on an educational issue of their choice. To accomplish this task, students had to search online journals for three articles on their topic of choice. Then, they read the articles and analyzed the issue. This experience afforded them an opportunity to look at the literature and form their own ideas about one critical area of education. This assignment was specifically aimed at giving them a foundation that they could later draw upon when researching their senior thesis topic, a graduation requirement of the College.

As the course progressed it became evident that students gained technological proficiency. The instructor noticed a decrease in the number of panic calls and office

visits from students who had lost assignments or were unable to access required readings. In order to help students gain confidence, the grading system was designed in such a way that each change in the nature of the electronic assignment was graded on a pass/fail system. Moreover, students were allowed to redo assignments. The lowest grade in sections with multiple assignments was dropped. This took pressure off the students' grade point average and encouraged students to become better technological risk takers. However, it placed a heavy correction load on the instructor. Each semester, the number of students who e-mailed assignments and then, wrote the instructor to ask if the assignment had been received lessened. This was a welcome relief in the number of e-mails that had to be answered each week. Students became more proficient at exploring and using the facilities of the Internet.

Student familiarity with the Alabama Virtual Library, a state-maintained online library of databases, became a reference point for classroom discussions. They actively used this electronic resource as a means of developing their professional discourse competence. The vocabulary choices that they made in discussing educational issues demonstrated that they were beginning to see themselves as preservice teachers. An identity shift was taking place. Moreover, students developed a mental continuum that placed education on the national, state, and local levels. They not only saw themselves as Stillman students but also saw themselves as members of the individual school communities often returning to the local schools after the number of required hours was satisfied. P-12th grade students developed an attachment to our students and addressed them by name in the halls and in the community. Faculty office hours became an opportunity for students to stop by and discuss what was taking place in their respective schools. This exchange afforded them the chance to talk about their own philosophical stance, classroom policies, and "their own classroom." Of course, not all students took advantage of this opportunity. The instructor never saw a certain percentage of the students for the two months that they were out in the schools.

A number of challenges presented themselves both for the instructor and the students. In the beginning, the availability of the technological resources was highly irregular. The server crashed all too often. Viruses were ubiquitous. Students had to learn how to identify and treat suspicious attachments. Sometimes students and faculty members had a high level of frustration both with the means of electronic exchange and the use of the software. The more motivated students wanted assurances that their final grade would not suffer if they used "all this new" technology. They continually asked for their grade point average. Other students often lost confidence, became overwhelmed, stopped doing assignments, and neglected to go out into the schools. It was the better risk takers with perseverance who eventually would succeed. The challenge was to encourage all students to build appropriate expectations and to create a system that fostered success.

Initially, the CIS Department was totally overwhelmed with pure numbers of users with problems. This led students to think that perhaps the instructor was the one who had answers for technology concerns. Miscommunications abounded. At one point in the semester, a move to another server left students and the instructor unable to access course materials. Academic content, albeit available earlier in semester, now became unavailable. Course expectations and the grading scale had to be modified in order to give students a chance to accomplish their goals. Finally, the instructor resorted to making paper copies of journal articles available to students.

One solution to many of these challenges was to devise a flexible grading system that fostered the academic, technological, and departmental goals and at the same time, negated the consequences of technological failures. Another was to readjust the course delivery to compensate for weaknesses in the system.

Ongoing Growth and Improvement

By fall 2001, two sections of Field Experience I and II were offered as the enrollment in the teacher education program increased dramatically. During this semester students received laptop computers and learned how to access the wireless network. Once students received the laptops, Field Experience faculty discovered that the server with the online Field Experience course material was not accessible through the wireless network. Students could still access the material through the desktop computers in the computer lab until the network connecting those computers was hit by the Nimbda computer virus causing all of the lab computers to crash. Since it took several weeks to repair the damage resulting from the virus, students lost access to the online resources for an extended period of time. The administration worked feverishly and at great expense to respond to the faculty's technology concerns. Each semester new management systems became available. Nonetheless, this charged faculty to learn new software and rebuild electronic resources. While this in itself is not a bad situation, it did make inordinate demands on faculty members' time. Thus, instructors were unable to give an equal amount of time and preparation to other courses.

During fall 2001, faculty members received training on the use of the Blackboard course management software. As a result of this training and administrative encouragement, faculty decided to transfer the online material from the Web pages on the Intranet server to Blackboard by spring 2002. In addition, the faculty decided to require students to subscribe to LiveText as the textbook for the field experience courses beginning the following semester. LiveText is an online resource providing templates for lesson plans, units, and portfolios that allows sharing between students and faculty and posting material through the Internet. Features of LiveText are described in the Carter (2002) *T & L Magazine* article. Both faculty and students made little use of the Intranet Web-based online resources towards the end of the fall 2001semester. However, electronic communications remained important for the exchange of information and assignments between faculty members and students. Interestingly, during the few occasions when the robust wireless network was temporarily down, Field Experience faculty and students learned they were able to beam information and assignments from laptop to laptop.

Despite the technology challenges, by the end of each semester, both faculty and students in the field experience courses had a sense of accomplishment. There was a strong sense of shared goals. The lines of communication between faculty and students expanded. New collegial networks developed between students. The cooperating teachers in the schools commented on how much they profited from having our students demonstrate their new technology skills in the P-12th grade classrooms. Students had a visible sense of pride and empowerment.

Two sections each of Field Experience I and II were taught during the spring 2002 semester. Blackboard became the management tool for the online material for these

courses during this semester. Through Blackboard, students in the Field Experience courses could access all online resources any place and any time they had access to the Internet. The Field Experience faculty placed online material on Blackboard that included syllabi, faculty contact information, documents such as the STEP conceptual framework and the state teacher evaluation criteria, a description of assignments, links to online resources, links to lesson plan sites including the Marco Polo portal, links to the Alabama Virtual Library, and technology tutorials. Blackboard provided the students with additional resources unavailable as part of the earlier Web-based resources. These included the online grade book that allows students to access grades for assignments and projects as soon as the professor posts them, announcements of important course dates and activities, and communications tools such as e-mail links to all participants in the course. The field experience instructors began to teach the students how to place products on LiveText during the spring 2002 semester. Students placed lesson plans for review on LiveText that they shared with faculty through the Internet. Students also began their professional portfolios on LiveText. The student portfolios contained links to their online lesson plans, reflections on the field experience, beginning philosophy statements, images of their teacher evaluations for their field experience, and a resume. Faculty members found that use of Blackboard and LiveText greatly facilitated the creation and delivery of online resources. They also enhanced student-faculty communications.

Data Collection and Analysis

Data collected for this case study came from multiple sources. Use of multiple sources is a tactic that increases the validity of a case study (Yin, 1994). The sources included faculty observations, student rosters indicating student classification, student attendance records, student field experience logs, student field experience reflection journals, faculty interviews, and faculty end-of-semester reflections. The researchers were participant-observers at various stages of the development and implementation process and provided much of the observation and reflection data. Interviews and reflections were examined for patterns. Analysis of the interviews and reflections revealed patterns indicating relationships between student classification (underclassmen or upperclassmen), attendance, and student use of online resources. The faculty interviews and reflections showed increased faculty satisfaction in the development and use of online resources as course management resources became available. The participant-observers discussed the data collected at departmental meetings and meetings called to specifically discuss the research on the use of online resources in the field experience courses. The discussions in the meetings lead to a synthesis of the data and to a consensus regarding conclusions from the data analysis.

Conclusions

The conclusions related to the first research question concerning how does a teacher education program develop and implement online resources for early field experience courses can be found in the description of the development and implementation mentioned above. As indicated in the description, faculty and students encountered numerous challenges in the initial phases of implementation of the online

resources. Faculty found the need to be flexible concerning assignments, due dates and grading procedures as a result of the challenges encountered. Once Blackboard and LiveText became available the implementation improved. The researchers concluded that course management tools such as Blackboard and LiveText improved faculty satisfaction in the development and use of online resources for the early field experience courses.

The second research question concerned why it would be advantageous to utilize online resources for early field experience courses. The faculty observed that the online resources were valuable in terms of convenience to some students with part-time jobs and family obligations. This was particularly true for students who were likely to be technology risk takers and who were persistent in their efforts to use the online resources. However, since the online resources have only been consistently available to students for one semester due to the implementation problems, the researchers determined that additional semesters of use are needed to form further conclusions in response to this research question.

The third research question concerned how the courses would be best organized for the most effective use of the online component. Researchers concluded that the course schedules that sent students to the field for extended blocks of time present unique circumstances that hindered use of online resources by some students. They concluded that a change in the course schedules might improve use of the online resources by early field experience students. This change will require additional study following implementation.

The final research question concerned how students would respond to the online resources. The researchers concluded that students who attended class and who satisfactorily completed their requirements for working in the field benefited from the availability of online resources in these courses. They also concluded that students with poor attendance and difficulty completing their field experience were unlikely to access the online material for the course. The researchers found that these same students were less likely to submit assignments and projects electronically or through LiveText. They also found that students with poor attendance were likely to miss classes providing instruction concerning the type of information placed online and how to utilize the online resources. The researchers concluded that a student's classification as an underclassman or an upperclassman had a relationship to the use of online resources. Although the two field experience courses are intended for freshmen and sophomore students, substantial numbers of juniors, and even a few senior students enrolled during the first year in which the courses were taught. This situation occurred because the field experience requirement was made retroactive for any student who planned to pursue teacher certification from fall 1998 onward. The researchers concluded that sections with larger numbers of upperclassmen utilized online resources when they were accessible more often than did classes with larger numbers of underclassmen. The upperclassmen appeared to provide leadership for underclassmen in the classes. Upperclassmen also tended to have better class attendance than freshmen and sophomore students. By the second year, few upperclassmen enrolled in the sections. Findings showed that more of the underclassmen floundered in both attendance and use of online resources with fewer upperclassmen in the course sections. The researchers concluded that freshmen and sophomore students need additional support to use online resources for the field experiences. They also

hypothesize that strategies to improve class attendance would be likely to improve use of online course material.

Plans for Improving the Use of Online Resources

In an attempt to improve attendance and the use of the online resources, the faculty plans to alter the schedule for the field experiences. Instead of sending the students to the schools for blocks of four or eight weeks, students will meet on campus one day a week and in the schools another day of the week. In addition, Stillman faculty plan to develop institutional templates for LiveText that will meet the Stillman portfolio requirement more specifically than the generic templates that come with the LiveText program. Students keep their LiveText account following the purchase of account access for approximately $80.00 for the rest of their time in the Stillman teacher education program and will continue to have access to the account for the first year of their teaching career. In the future, students will receive individual portfolio reviews at the end of each course requiring development or revision of the LiveText portfolio. These individual reviews will begin in the Field Experience classes.

Recommendations for Further Research

The researchers plan to continue to study the use of online resources in the teacher education early field experience courses at Stillman College. Although there is debate about applying the results of case study research (Donmoyer, 1990) to the general population, this case study suggests the need for additional research on the use of online resources for early field experiences in several areas. Research is needed to examine relationships between class attendance and the use of online resources. Research is also needed to determine whether underclassmen need specialized support and instruction in the use of online resources. The use of online resources for field experiences, internships, and other off-campus learning activities is another area for further study. Additional research is needed to examine whether the use of commercial course management software is as beneficial for the development and implementation of online resources at other institutions as it has been at Stillman College.

References

Carter, K. (2002, April 15). Let's Meet Online: Collaboration Tools. *T & L Magazine, 2*(9). Retrieved May 20, 2002, from http://www.techlearning.com/db_area/archives/TL/2002/04/meet.html

Donmoyer, R. (1990). Generalizability and the single-case study. In E. W. Eisner & A. Peshkin (Eds.), *Qualitative inquiry in education* (pp. 175-200). New York: Teachers College Press.

Eby, J. (1992). *Reflective planning, teaching, and evaluation for the elementary school*. New York: Merrill.

Guyton, E. M., Rainer, J., & Wright, T. (1997). Developing a Constructivist Teacher Education Program. In D. M. Byrd & D.J. McIntyre (Eds.), *Research on the*

education of our nation's teachers: Teacher education yearbook V (pp. 149-171). Thousand Oaks, CA: Corwin Press.

Liston, D. & Zeichner, K. (1991). *Teacher education and the social conditions of schooling.* New York: Routledge.

MacRorie, K. (1988). *The I-Search Paper.* Portsmouth, NH: Boynton/Cook Publishers.

McIntyre, D. J. (1983). *Field experience in teacher education from student to teacher*. Washington, DC: Foundations for Excellence in Teacher Education and ERIC Clearinghouse on Teacher Education.

Schwille, S. A., Nagel, A. L., DeBolt, G. P. (2000). Mentor selection and mentor/novice matching. In S. J. Odell & L. Huling (Eds.), *Quality mentoring for novice teachers* (pp. 57-66). Indianapolis: Kappa Delta Pi International.

Valli, L. (Ed.). (1992). *Reflective teacher education: Cases and critiques.* Albany, NY: State University of New York Press.

Yin, R. K. (1994). *Case study research: Design and methods* (2nd ed.). Thousand Oaks, CA: Sage Publications.